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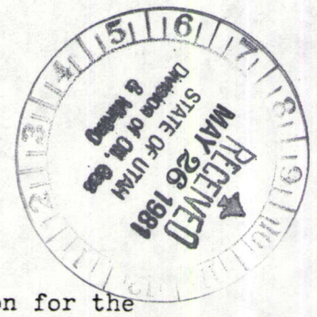
Engineer's Report

Dewey Bridge Placer Operation

Diamin Poor Boy - ID 42-01664



A. Project Description

The proposed operation is a placer mining operation for the purpose of recovering ultra fine gold from the ancient river terraces of the Colorado River, utilizing new sluicing techniques.

B. Location

The project is located immediately east of the Dewey Bridge, Utah, on the south side of the Colorado River. The operation site is 3 claims, Poor Boy #1, #2 & #3, which are posted for a total of 3,960 feet along the river edge and going back to the edge of the cliff on the south side (see map submitted previously). The proposed operation will start at the east end of the site. This report will deal with the initial phase of the operation.

C. Area Topography

The project area lies between Robert's Mesa and the Dewey Bridge in Grand County, Utah. The topography of the immediate area consists of

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ancient river terrace gravels surrounded by Triassic and Jurassic sandstone cliffs formed by erosive action of the Colorado River. The river valley varies in width but at this point is approximately 3/4 of a mile between the exposed cliffs of the Summerville and Entrada formations. The river in this area currently runs east to west quite close to the southern side of the valley. The river bank is sandstone bedrock of which about 5 vertical feet is usually exposed when the river is at normal level. Above this the gravel deposits lie on bedrock in varying thicknesses back up to the sandstone outcrops. The surface topography is generally level at the river edge with an increase in slope away from the river until the natural talus slope is attained close to the base of the sandstone outcrop. The distance from the river to the cliffs varies from 600 to 900 feet. At the eastern part of the claim there is a ravine which is proposed for use as a primary settling facility as laid out in the initial proposal. The ravine has no modern drainage area although it appears to have once drained a high plateau before the Delores River changed the topography of the plateau area to the south of the Colorado River Valley.

D. Population and Industry

The population in this area is very sparse limited to 3 or 4 homesteads located within 5 miles of the site. There is some limited grazing for cattle on the north side of the river. There are some proposed gold recovery operations for this area but none have obtained operational status as yet. The summer months bring a number of tourists along highway #128 to view the magnificient sandstone cliffs and mesas farther down the river towards Moab.

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E. Proposed Waste Water Treatment

The sluicing process will require approximately 800 gpm (100 cu. ft./min.) for full operation. We anticipate total lagoon capacity to be approximately 900,000 cu. ft. decreasing to about 350,000 cu. ft. when the upper retaining lagoon has filled up. This allows for a minimum design retention time of 2½ days. The upper lagoon should fill up in a period of approximately 90 days. The lagoons will be maintained at 350,000 cu. ft. of water supply which will allow displacement by settled solids of 550,000 cu. ft. and be within lagoon capacity.

At the time the upper lagoon has filled we anticipate switching to the excavation area used during the first 90 days or recycling the material from the first lagoon by stockpiling. The Department of Health will be advised of the intended program well in advance.

There are no sewers in the area to be mined nor are any planned. Human wastes will be disposed of in a chemical toilet and the small amount of garbage will be incinerated or buried as required.

The site is beside the Colorado River and will have limited ground water leaching of clean water into the river. To enter the river the water shall go through the pond system and then percolate down between the surface and bedrock before discharging into the river. This should take a minimum of 3 days from the time of discharge and should not differ from ground water flow paths of normal precipitation. The impermeable dam on

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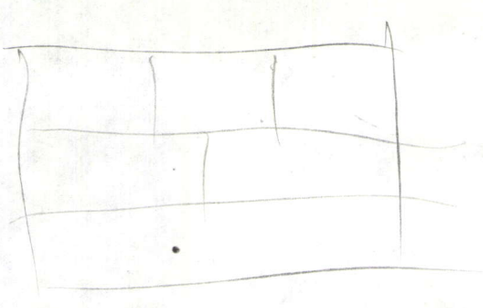

bedrock should minimize any leaching from the portion of the lagoon closest to the river. Some will occur from the sides but should be minimized and will be monitored at the rivers edge where bedrock outcrops will cause the seep to surface. This tendency should decrease with time as permeability of the reservoir sides become silted off. - WHERE ARE MONITORING POINTS LOCATED.

The location of the lagoons is such that they should pose no hazard to visitors or wildlife in the area. Access to the lagoons is either from the sandstone cliff area above, which is impassable by normal means, or through a barricaded or fenced off area posted with no trespassing signs.

J.F. Hamilton

P. Eng.